

WHAT IS CLAIMED IS:

1. A sheet transport system for a rotary printing press comprising:
rails configured on both sides of a sheet transport path;
5 driven grippers being guided on the rails for pulling a sheet to be conveyed
in a feed direction, the sheet having side edges and a front end with respect to the
feed direction, the grippers engaging the side edges of the sheet near the front end.

Sub a' 10 > 2. The sheet transport system as recited in claim 1 wherein the rails run along at
least one nip between two cylinders of the rotary printing press.

3. The sheet transport system as recited in claim 2 wherein the rails run
continuously between a feeder and a delivery device of the rotary printing press.

15 4. The sheet transport system as recited in claim 1 further comprising an
electronic control circuit for synchronizing the motion of the grippers with the
rotation of cylinders of the rotary printing press.

20 5. The sheet transport system as recited in claim 4 wherein the control circuit
synchronizes the motion of the grippers which are mounted on different rails and
hold a same sheet.

25 6. The sheet transport system as recited in claim 1 further comprising at least
one pair of lagging grippers running on the rails to grip a lagging end of the sheet.

7. The sheet transport system as recited in claim 6 wherein the lagging gripper
pair is braked.

Sub a2 30 > 8. The sheet transport system as recited in claim 1 wherein the grippers each
include two clamping jaws, and further comprising magnets arranged at at least one
of an intake area and at an outlet area of the rails for opening the clamping jaws by

10 magnetic force.

9. The sheet transport system as recited in claim 8 wherein the clamping jaws are forced together by a spring element.

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Sub A³ 10. The sheet transport system as recited in claim 1 wherein the rails diverge at at least one of at an intake area and an outlet area transversely to the feed direction, in a plane of the transported sheet.

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11. The sheet transport system as recited in claim 1 wherein the grippers hold the sheet in an area of the sheet that extends beyond the width of the cylinders of the rotary printing press.

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12. A method for transporting a sheet having a front edge and a first side edge and a second side edge in a rotary printing press comprising:

gripping the first side edge near the front edge with a first gripper;

gripping the second side edge near the front edge with a second gripper; and

moving the first and second grippers on rails configured on both sides of a sheet transport path so as to move the sheet along the sheet transport path.

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13. The method as recited in claim 12 further comprising gripping the first side edge at a rear of the sheet with a third gripper.

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